920476-904898

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of	:	Weil et al
Serial No.	:	09/848,743
Filed	:	May 3, 2001
For	:	Communication System and Method of Optimising Provisioning of Service to Subscribers in a Passive Optical Network
Examiner	:	Salad, Abdullahi Elmi
Art Unit	:	2157
Customer number	:	23644

SUCCINCT STATEMENT IN SUPPORT OF PRE-APPEAL BRIEF REQUEST FOR REVIEW

Honorable Director of Patents and Trademarks
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

As required under the Pilot Program initiated July 12, 2005, following is the Applicants' statement in support of the Appeal Brief Conference for this application:

Claim 1 and other claims are rejected under 35 U.S.C. §103(a) for obviousness over a combination of Jardetsky and Anderson. The Examiner acknowledges that Jardetsky does not show the claim feature of removing fewer selected adjacencies from the overlay topology if no path is available, and repeating the path computation. Anderson is cited as showing these features, and it is alleged to be obvious to incorporate these into Jardetsky.

As will now be explained, Anderson and Jardetsky represent different approaches which are incompatible alternatives, so it would not have been obvious to combine

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them. Even if they were combined, Anderson does not show all the missing features, and so the combination would not lead to the invention as claimed.

To summarize Anderson, it indicates that when a packet is unable to reach a destination, an alternate route is computed that does not share the next hop in a logical topology, with the original route, and this is repeated for calculating a next hop and so on, where there is a failure, until the destination is reached. In other words only the hops along the original logical path to that destination are removed when computing a backup path to use in the case of a failure. This is completely different from the method claimed and from the method of Jardetsky. There is no mention in Anderson of removing adjacent hops which are adjacent to the original hops.

Of course the removal of adjacencies is much more significant than merely removing the hops of the original path. For example it enables removal of hops which share the same underlying physical entities which may have failed. This enables a wider range of failures to be overcome.

The claim also specifies retrying the path computation with fewer of the adjacencies removed, if necessary. This helps enable a less optimal path to be found, when there is no optimal path, which may provide many grades of weaker protection and so clearly makes better use of the available resources. There is no suggestion of this graded search for a successively weaker path, in Anderson. Hence either Jardetsky nor Anderson show the claim feature of removing fewer adjacencies and retrying the path computation to obtain the weaker protection when there is no path available which avoids all the adjacencies. Hence this claim cannot have been obvious over the cited documents taken alone or in combination.

The cited passages of Anderson say

[0048] The network nodes preferably use a fast detection mechanism for detecting network failures quickly (relative to a traditional failure detection mechanism). Upon detecting a network failure, the network nodes switch certain communications to one or more recovery paths in order to bypass the network failure, while communications unaffected

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by the network failure typically remain on the primary paths. The switch over to the recovery paths can be accomplished, for example, by removing the primary path from the forwarding table, blocking the primary path in the forwarding table, or marking the recovery path as a higher priority path than the primary path in the forwarding table (i.e., assuming the recovery paths are already installed in the forwarding table). The network nodes may switch all communications from a failed primary path to a recovery path, or may switch only a portion of communications from the failed primary path to the recovery path, perhaps using IP Differentiated Services (DiffServ) or other prioritization scheme to prioritize traffic. By detecting the network failure quickly and switching communications to pre-computed recovery paths, network failures are bypassed quickly.

[0078] In any layered network model, failures can be understood as relating to a certain layer. Each layer has some capability to cope with failures. If a particular layer is unable to overcome a failure, that layer typically reports the failure to a higher layer that may have additional capabilities for coping with the failure. For example, if a physical link between two nodes is broken, it is possible to have another link on standby and switch the traffic over to this other link. If the link control logic (L2) fails, it is possible to have an alternate in place. If all of these methods are unable to resolve the problem, the failure is passed on to the network layer (L3).

This confirms the arguments set out above that Anderson is not relevant.

Regarding independent claim 3, this claim recites a method of calculating a protection path by defining in a model of the network "a hierarchy of protection levels, each said protection level being characterized by a respective set of broken adjacencies in said model; attempting to calculate a recovery path for a selected protection level in said hierarchy; and if no said path is available, repeating said calculation attempt for successive further protection levels in said hierarchy until a protection path is identified."

The Examiner tries to argue that Anderson shows in the above paras 0048 and 0078 the claim features of if no path is available, repeating the calculation for further protection levels. There is mention of reporting failures to higher layers, but not of repeating a path calculation for further protection levels. This can bring similar advantages to those explained above in relation to claim 1. There is no suggestion of this nor how to achieve the advantages in Anderson. Hence this claim cannot be obvious over the cited documents taken alone or in combination.

Regarding independent claim 4, this has features corresponding to those of claim 3 and so is not anticipated for the same reasons.

Regarding independent claims 15, 16, 17, 18, 19 and 21, the same reasons as for claim 1 apply.

The Applicants arguments, in summary, are:

1. one skilled in the art would not be motivated to combine Anderson and Jardetzky because they represent different approaches which are incompatible alternatives.

2. In any event, Anderson does not show the feature of "removing fewer selected adjacencies from the overlay topology and repeating said path computation" or like features. It is of course implicit that by removing fewer selected adjacencies from the overlay topology and repeating said path computation, it is inevitable that a weaker protection will be obtained. To make this absolutely clear, it is implicit that if fewer adjacencies are removed, then recovery paths which may be computed will provide weaker protection since fewer adjacencies in the communications network may actually fail and the method of fault recovery still be successful.

If the Examiner was persuaded (as he appeared to be) that neither Jardetzky nor Anderson show the claim feature of "modifying the overlay topology by removal of selected adjacencies, attempting computation of a path, and if no path is available

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removing fewer selected adjacencies from the overlay topology and repeating said path computation", and like features then there is <u>no reason to maintain the rejection</u> and it is submitted that the application should be allowed.

It is therefore submitted that the Examiner's rejections of the claims of this application are untenable, and were this application to proceed to the Board of Appeals and Interferences, the Examiner would be reversed. The results of this review are therefore awaited.

March 2, 2006   Respectfully submitted,
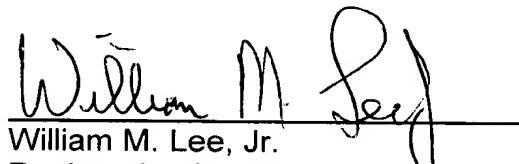
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PRE-APPEAL BRIEF REQUEST FOR REVIEW	Docket Number (Optional) 920476-904898

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on __March 2, 2006__ Signature _Minnie Wilson_	Application Number 09/848,743	Filed May 3, 2001
	First Named Inventor Weil	
Typed or printed name __Minnie Wilson__	Art Unit 2157	Examiner Salad, Abdullahi

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
　　　Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)

☒ attorney or agent of record.
Registration number ____26,935____

☐ attorney or agent acting under 37 CFR 1.34.

Registration number if acting under 37 CFR 1.34 _____
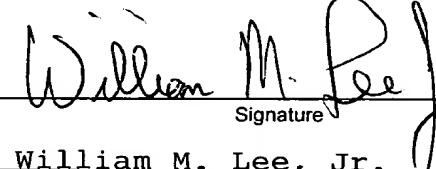
Signature: _William M. Lee_

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Typed or printed name

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Telephone number

March 2, 2006
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☒ *Total of ___1___ forms are submitted.